ROUTE PERMIT

FOR CONSTRUCTION OF A

HIGH VOLTAGE TRANSMISSION LINE

IN

HENNEPIN COUNTY, MINNESOTA

ISSUED TO

GREAT RIVER ENERGY

MEQB DOCKET NO. 03-65-TR-GRE PMG

In accordance with the requirements of Minnesota Statutes section 116C.57 and Minnesota Rules chapter 4400, this Route Permit is hereby issued to

GREAT RIVER ENERGY

Great River Energy is authorized by this permit to construct a new 115 kilovolt transmission line approximately 14 miles long to connect seven existing electric substations including the Elm Creek Substation on the north end and the Parkers Lake Substation on the south end, along a route identified in this Permit and in compliance with the conditions specified in this Permit.

STATE OF MINNESOTA
ENVIRONMENTAL QUALITY BOARD

Robert A. Schroeder
Chair

Issued: May 20, 2004

I. ROUTE PERMIT

The Minnesota Environmental Quality Board hereby issues this Route Permit to Great River Energy, pursuant to Minnesota Statutes section 116C.57 and Minnesota Rules chapter 4400. This permit authorizes Great River Energy to construct a 115 kilovolt transmission line and associated facilities in Hennepin County, Minnesota.

II. PROJECT DESCRIPTION

The new high voltage transmission line authorized to be constructed under this Permit is a 115 kilovolt line approximately 14 miles long that will connect seven substations in Hennepin County – Elm Creek, Hennepin, Arbor Lake, Cedar Island, Bass Lake, Plymouth, and Parkers Lake substations. Approximately two-thirds of the line will follow an existing 69 kV transmission line corridor and use existing rights-of-way, and the other one-third will require new right-of-way. The 69 kV transformers at the Hennepin, Arbor Lake, Cedar Island, Bass Lake, and Plymouth substations will be replaced with new 115 kV distribution transformers. The Elm Creek and Parkers Lake substations will be modified to accommodate the termination points of the new line. The structures will be single shaft wooden poles except where longer spans are necessary, such as over Interstate 494, where galvanized steel single shaft structures will be used. The phase wires will be 795 MCM (795,000 circular mil) aluminum conductor steel supported (ACSS) with seven steel core strands and 26 outer aluminum strands. The conductor has an overall diameter of 1.108 inches.

III. DESIGNATED ROUTE

The route designated by the Environmental Quality Board in this Permit is the route preferred by Great River Energy. The route, shown on the attached map, is described as follows, beginning on the north end at the Elm Creek Substation and finishing at the south end at the Parkers Lake Substation:

A. From the Elm Creek Substation, the route follows the existing Xcel Energy single circuit 115 kV line running southeasterly approximately 2.25 miles to the intersection with GRE's existing north-south 69 kV line connecting the Arbor Lake and Hennepin Substations. The existing Xcel Energy line will be rebuilt from a single circuit configuration to a double circuit configuration for this 2.25-mile distance.

B. At the point where the double circuit line described in paragraph A intersects the existing north-south 69 kV line, the line will be rebuilt to a 115 kV line from that point approximately 0.5 miles north to the Hennepin Substation along the existing route.

C. At the same intersection point described in paragraph A, the existing 69 kV line will be rebuilt to a 115 kV line along the existing route, for approximately 7.1 miles connecting the Arbor Lake, Cedar Island, Bass Lake, and Plymouth

Substations.

D. From the Plymouth Substation, the line will follow a new right-of-way for approximately 4.25 miles to the Parkers Lake Substation. Upon leaving the Plymouth Substation, the line will run south along the west side of the Interstate, before crossing to the east side just north of Rockford Road. The line then runs southerly on the east side of the Interstate to the Parkers Lake Substation.

IV. PERMIT CONDITIONS

The Permittee shall comply with the following conditions during construction of the pipeline and the life of this Permit.

A. Plan and Profile. At least 14 days before right-of-way preparation begins, the Permittee shall provide the EQB with a plan and profile of the right-of-way and the specifications and drawings for right-of-way preparation, construction, cleanup, and restoration for the transmission line. The Permittee may not commence construction until the 14 days has expired or until the EQB has advised the Permittee that it has completed its review of the documents and determined that the planned construction is consistent with this permit. If the Permittee intends to make any significant changes in its plan and profile or the specifications and drawings after submission to the EQB, the Permittee shall notify the EQB at least five days before implementing the changes. No changes shall be made that would be in violation of any of the terms of this permit.

B. Construction Practices.

1. Application. The Permittee shall follow those specific construction practices and material specifications described in the Route Permit Application for the Plymouth-Maple Grove 115 kV Transmission Line submitted by Great River Energy & Wright-Hennepin Cooperative Electric Association dated September 9, 2003, unless this Permit establishes a different requirement in which case this Permit shall prevail.

2. Field Representative. At least ten days prior to commencing construction, the Permittee shall advise the EQB in writing of the person or persons designated to be the field representative for the Permittee with the responsibility to oversee compliance with the conditions of this Permit during construction. This person's address, phone number, and emergency phone number shall be provided to the EQB, who may make the information available to local residents and public officials and other interested persons. The Permittee may change its field representative at any time upon written notice to the EQB.

3. Cleanup. All waste and scrap that is the product of construction shall be removed from the area and properly disposed of upon completion of each task. Personal litter, bottles, and paper deposition by construction workers shall be removed on a daily basis.

4. Vegetation Removal. The Permittee shall minimize the number of trees to be removed as part of the construction of the line.

5. Erosion Control. The Permittee shall implement reasonable measures to minimize runoff during construction and shall plant or seed areas where structures are installed.

C. Completion of Construction

1. Notification. At least three days before the line is to be placed into service, the Permittee shall notify the EQB of the date on which the line will be charged and the date on which construction was complete.

2. As-Builts. Upon request of the EQB, the Permittee shall submit copies of all the final as-built plans and specifications developed during the project.

3. **GPS Data.** Within sixty days of completion of construction, the Permittee shall submit to the EQB, in the format requested by the EQB, geo-spatial information (GIS compatible maps, GPS coordinates, etc.) for all above ground structures associated with the transmission lines and each substation connected.

D. Electrical Performance Standards.

1. Grounding. The Permittee shall design, construct, and operate the transmission line in such a manner that the maximum steady-state short-circuit current shall be limited to five milliamperes rms alternating current between the ground and any non-stationary object within the right-of-way including but not limited to, large motor vehicles and agricultural equipment. All fixed metallic objects on or off the right-of-way, except electric fences that parallel or cross the right-of-way, shall be grounded to the extent necessary to limit the short circuit current between ground and the object so as not to exceed one milliampere rms under steady state conditions of the transmission line and to comply with the ground fault conditions specified in the National Electric Safety Code.

2. Electric Field. The transmission line shall be designed, constructed, and operated in such a manner that the electric field measured one meter above ground level immediately below the transmission line shall not exceed 8.0 kV/m rms.

3. Radio and Television Interference. If radio or television interference is caused by the presence or operation of the transmission line, the Permittee shall take whatever action is prudently feasible to restore or provide reception equivalent to reception levels in the immediate area just prior to the construction of the line.

E. Applicable Codes. The Permittee shall comply with applicable Rural Utilities Service (RUS) construction standards and requirements of the National Electric Safety Code (NESC) including clearances to ground, clearance to crossing utilities, clearance to buildings, right-of way widths, erecting power poles, and stringing of transmission line conductors.

F. Other Requirements. The Permittee shall comply with all applicable state rules and statutes. The Permittee shall obtain all required permits for the project and comply with the conditions of these permits. A list of the required permits is included in the permit application and the environmental assessment.

G. Delay in Construction. If the Permittee has not commenced construction or improvement of the route within four years from the date of issuance of this Permit, the EQB shall consider suspension of the Permit in accordance with Minn. Rules part 4400.3750.

H. Special Conditions.

1. Right-of-way Acquisition. The Permittee shall not acquire any new right-of-way between the Elm Creek Substation and the Plymouth Substation. From the Plymouth Substation to the Parkers Lake Substation, the Permittee may acquire up to 80 feet of new right-of-way. In those cases where the use of shared interstate right-of way is authorized by the Minnesota Department of Transportation, the Permittee may acquire up to 40 feet of new right-of-way. The Permittee shall construct the transmission structures as close to the Interstate as is reasonably possible and as far from homes as reasonably possible.

2. Rockford Townhomes. By July 1, 2004, the Permittee shall submit to the EQB Chair for review and approval, a plan to address mitigation of the visual impact of the new line on residential areas on the east side of the Interstate south of the Plymouth Substation.

3. Ballfields. The Permittee shall work with the City of Plymouth to locate structures south of the Plymouth Substation in a manner that the structures do not interfere with the location of proposed ballfields to be constructed by the City.

4. Maple – Basswood Forest. The Permittee shall work with the City of Plymouth to locate the structures in the area of a maple-basswood forest south

of Schmidt Lake Road in the Plymouth to Parkers Lake segment of the proposed route to clear as few trees as possible and to plant new trees in accordance with City requirements if applicable. The Permittee shall stake the proposed route in the fall or winter when the leaves are off and provide the City an opportunity to assess the potential impacts.

5. Substation Modifications. The footprint of the Elm Creek, Hennepin, Arbor Lake, Cedar Island, Bass Lake, Plymouth, and Parkers Lake substations shall not be expanded.

V. PERMIT AMENDMENT

This permit may be amended at any time by the Environmental Quality Board. Any person may request an amendment of this permit by submitting a request to the Chair in writing describing the amendment sought and the reasons for the amendment. The Chair will mail notice of receipt of the request to the Permittee. The EQB may amend the permit after affording the Permittee and interested persons such process as is required.

VI. TRANSFER OF PERMIT

The Permittee may request at any time that the Environmental Quality Board transfer this permit to another person or entity. The Permittee shall provide the name and description of the person or entity to whom the permit is requested to be transferred, the reasons for the transfer, a description of the facilities affected, and the proposed effective date of the transfer. The person to whom the permit is to be transferred shall provide the EQB with such information as the EQB shall require to determine whether the new permittee can comply with the conditions of the permit. The EQB may authorize transfer of the permit after affording the Permittee, the new permittee, and interested persons such process as is required.

VII. REVOCATION OR SUSPENSION OF THE PERMIT

The Environmental Quality Board may initiate action to revoke or suspend this permit at any time. The EQB shall act in accordance with the requirements of Minnesota Rules part 4400.3950 to revoke or suspend the permit.